

Claims

What is claimed is:

1. A method comprising:
 - receiving a request to change to a first channel;
 - writing a media stream of the first channel to a first buffer at a first write position;
 - reading the media stream of the first channel from the first buffer at a first read position;
 - sending the read media stream of the first channel to a display;
 - and
 - upon receiving a request to change to a second channel, discontinuing the reading of the media stream of the first channel at the first read position while continuing to write the media stream of the first channel at the first write position.
2. The method of claim 1, further comprising:
 - writing a media stream of the second channel to a second buffer at a second write position;
 - reading the media stream of the second channel from the second buffer at a second read position; and
 - sending the read media stream of the second channel to the display.

3. The method of claim 2, further comprising:

upon receiving a request to change back to the first channel,
discontinuing the reading of the media stream of the second channel at
the second read position while continuing to write the media stream of
the second channel at the second write position;

continue reading the media stream of the first channel at the
first read position; and

sending the read media stream of the first channel to the
display.

4. The method of claim 2, further comprising:

ensuring that the first read and write positions do not overlap;
and

ensuring that the second read and write positions do not
overlap.

5. The method of claim 1, further comprising:

upon receiving the request to change to the first channel,
determinining an available tuner to assign to the media stream of the
first channel; and

upon receiving the request to change to the second channel,
determining an available tuner to assign to the media stream of the
second channel, wherein the tuner assigned to the media stream of the
first channel is different from the tuner assigned to the media stream of
the second channel.

6. The method of claim 5, further comprising:
- receiving a request to change to a third channel; and
 - making a tuner available to assign to a media stream of the third channel.
7. The method of claim 6, wherein a tuner is made available by assigning one of:
- the first tuner to the media stream of the third channel if the first channel was watched less recently by a user than the second channel and the second tuner to the media stream of the third channel if the second channel was watched less recently by the user than the first channel.
8. The method of claim 2, wherein the first buffer is a circular buffer and the second buffer is a circular buffer.
9. A system comprising:
- a resource manager that receives a request to change to a first channel;
 - a first personal video recorder (PVR) engine that writes a media stream of the first channel to a first buffer at a first write position; and
 - a playback engine that reads the media stream of the first channel from the first buffer at a first read position, wherein the playback engine then sends the read media stream of the first channel to a display, and wherein the playback engine discontinues the reading of the media stream of the first channel at the first read position once

the resource manager receives a request to change to a second channel while the first PVR engine continues to write the media stream of the first channel at the first write position.

10. The system of claim 9, further comprising:

a second PVR engine that writes a media stream of the second channel to a second buffer at a second write position, wherein the playback engine then reads the media stream of the second channel from the second buffer at a second read position, and wherein the playback engine then sends the read media stream of the second channel to the display.

11. The system of claim 10, wherein the playback engine discontinues the reading of the media stream of the second channel at the second read position once the resource manager receives a request to change back to the first channel while the second PVR engine continues to write the media stream of the second channel at the second write position, wherein the playback engine continues reading the media stream of the first channel at the first read position, and wherein the playback engine sends the read media stream of the first channel to the display.

12. The system of claim 10, wherein the resource manager ensures that the first read and write positions do not overlap, and wherein the resource manager ensures that the second read and write positions do not overlap.

13. The system of claim 9, wherein the resource manager determines an available tuner to assign to the media stream of the first channel upon receiving the request to change to the first channel, wherein the resource manager determines an available tuner to assign to the media stream of the second channel upon receiving the request to change to the second channel, and wherein the tuner assigned to the media stream of the first channel is different from the tuner assigned to the media stream of the second channel.
14. The system of claim 13, wherein the resource manager receives a request to change to a third channel, and wherein the resource manager makes a tuner available to assign to a media stream of the third channel.
15. The system of claim 14, wherein a tuner is made available by assigning one of: the first tuner to the media stream of the third channel if the first channel was watched less recently by a user than the second channel and the second tuner to the media stream of the third channel if the second channel was watched less recently by the user than the first channel.
16. The system of claim 10, wherein the first buffer is a circular buffer and the second buffer is a circular buffer.

17. A machine-readable medium containing instructions which, when executed by a processing system, cause the processing system to perform a method, the method comprising:

receiving a request to change to a first channel;

writing a media stream of the first channel to a first buffer at a first write position;

reading the media stream of the first channel from the first buffer at a first read position;

sending the read media stream of the first channel to a display;

and

upon receiving a request to change to a second channel, discontinue the reading of the media stream of the first channel at the first read position while continuing to write the media stream of the first channel at the first write position.

18. The machine-readable medium of claim 17, further comprising:

writing a media stream of the second channel to a second buffer at a second write position;

reading the media stream of the second channel from the second buffer at a second read position; and

sending the read media stream of the second channel to the display.

19. The machine-readable medium of claim 18, further comprising:

upon receiving a request to change back to the first channel,
discontinue the reading of the media stream of the second channel at
the second read position while continuing to write the media stream of
the second channel at the second write position;
continue reading the media stream of the first channel at the
first read position; and
sending the read media stream of the first channel to the
display.

20. The machine-readable medium of claim 18, further comprising:

ensuring that the first read and write positions do not overlap;
and
ensuring that the second read and write positions do not
overlap.

21. The machine-readable medium of claim 17, further comprising:

upon receiving the request to change to the first channel,
determining an available tuner to assign to the media stream of the
first channel; and
upon receiving the request to change to the second channel,
determining an available tuner to assign to the media stream of the
second channel, wherein the tuner assigned to the media stream of the
first channel is different from the tuner assigned to the media stream of
the second channel.

22. The machine-readable medium of claim 21, further comprising:

receiving a request to change to a third channel; and

making a tuner available to assign to a media stream of the third channel.

23. The machine-readable medium of claim 22, wherein a tuner is made available by assigning one of: the first tuner to the media stream of the third channel if the first channel was watched less recently by a user than the second channel and the second tuner to the media stream of the third channel if the second channel was watched less recently by the user than the first channel.

24. The machine-readable medium of claim 18, wherein the first buffer is a circular buffer and the second buffer is a circular buffer.